THE AGRICULTURAL SITUATION

JULY 1946

A Brief Summary of Economic Conditions

Issued Monthly by the Bureau of Agricultural Economics, United States Department of Agriculture
The matter contained herein is published by direction of the Secretary of Agriculture as administrative information required for proper transaction of the public business and approved by the Director of the Budget. Subscription price, 50 cents per year; single copy, 5 cents; foreign price, 70 cents; payable in cash or money order to the Superintendent of Documents, Government Printing Office, Washington 25, D. C.

VOLUME 30 - NUMBER 7 - WASHINGTON, D. C.

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U. S. Crop Reporters

EVERY year from planting-time to harvest farmers ask each other: "How are your crops?" This year, the whole world is asking American farmers the same question—for on American crops depend the lives and health of hungry millions in Europe and the Far East.

The urgency of the query focusses unusual attention on the work of the United States Crop Reporting Board. The facts on farm production, stocks, prices, and crop prospects come from this board, based on reports from half a million farmers throughout the Nation. Reporting through the State agricultural statisticians, this corps of voluntary reporters constitutes the most extensive national crop reporting organization in the world. From these reporters, crop by crop, will come the awaited answers on the size and progress of farm production in the United States this year.

Official monthly crop reports are based on estimates of crop conditions and prospects furnished by 115,000 voluntary correspondents, mostly farmers. Another 100,000 correspondents may be asked to report on special crops or products each month. In addition, 500,000 to 600,000 farmers report to the field statisticians on their own acreages and farming operations at various times throughout the year. Some 100,000 local merchants and dealers report monthly on prices received and paid by farmers in their local markets. In addition, for miscellaneous regular and special statis-

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tical reports, information is furnished by thousands of plants and establishments that handle agricultural or food products, including mills and elevators, cotton ginners, dairy manufacturing plants, sugar-beet and cane-sugar factories, peanut and rice mills and canning and preserving establishments.

The local correspondents maintain direct contact with the 41 field offices of State agricultural statisticians, which in turn send State reports to the Washington staff of the Crop Reporting Board for coordination on a national basis.

New demands during the war emphasized the significance of the crop and livestock reports and statistics already assembled and currently published by the Department of Agriculture. In addition, new reports have been required for such wartime problems as food purchases for other nations, increased food-production goals, adequate provision of storage and transportation for bumper harvests, price controls, determination of priorities and manpower distribution. Special surveys reported the acreage, production and supplies of 57 kinds of vegetable seeds, and measured their adequacy to meet domestic demands and the wants of the United Nations. Essential information was furnished on such strategic crops as soybeans, dry beans, and dry peas, needed for overseas shipment or expanded domestic use.

The huge volume of information required by the Nation's leaders as a basis for their decisions added extra work to the wartime burden of many reporting farmers. But in spite of longer hours, fewer farm hands and more headaches, crop reporters continued to meet their report deadlines. Throughout the war, they made possible the vital measurement of farm production and food supplies.

The current situation in wheat illustrates how basic facts, supplied by reporters, combined with the organization and experience of the crop reporting service, contribute toward national action in a crisis.

When it became obvious that foreign countries would not have enough food on hand, and had not scheduled enough imports to carry their people through to this season's harvest, American stocks of wheat became the No. 1 question. Ordinarily, complete reports of wheat stocks are assembled four times a year to show supplies on farms and in various off-farm storage positions, State by State, as of the first of January, April, July, and October.

The April report this year showed that total stocks of wheat on April 1 amounted to 339 million bushels and that farm stocks, although below normal, constituted nearly two-thirds of the Nation's reserve supply of wheat.

Rumors appeared in print that farmers were "holding their wheat for a higher price." The crop-reporting service was called to find out immediately just how much wheat was being held on farms, and how fast it was moving to market. A special check-up based on day-to-day analysis of this year's figures compared with other years showed that farm stocks of wheat had been moving to market faster this spring than ever before. Flour-production figures confirmed this conclusion. January flour production reached an all-time high of 25.6 million sacks. February flour production was only slightly below this record, and March production was still far above average.

The figures also showed that 70 percent of the farm holdings were in the Dakotas, Nebraska, Kansas, and Montana. Purchasing agencies thus knew where to concentrate their efforts and were able to avoid useless canvassing of farms and storage places that had no more wheat to sell.

Corn gives another illustration. In March, farmers reported that they intended to plant about 93 million

acres of corn this year. On a basis of normal yields, this figure was considered to be far below the expected needs of the Nation. The national goal had been set at 97.8 million acres. Immediately the call went out to county production committeemen to encourage heavier plantings of corn. The call was not based on an armchair decision in Washington, but on facts relative to acreage and production plans for this year, supplied for the most part by farmers themselves.

The day-to-day results of crop reporting are not dramatic. But they play a vital part in the decisions of war and of peace. The American crop reporting service has won the respect and confidence of world leaders. Long considered a model organization by other nations, it is now being closely studied by representatives of many foreign countries who want to adapt its organization and methods to their homelands.

People who never know whether their country has enough food to keep them from hunger can never be at peace with themselves or with the world. In one sense, permanent peace depends on all farmers of all countries giving a frank, truthful answer to the question: "How are your crops?"

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Commodity Reviews

WHEAT

With prospective export demand very large again in 1946–47, wheat prices are expected to continue at least as high as previous ceilings. It is the intent of the Department of Agriculture to export 250 million bushels during the 1946–47 marketing year on the basis of a production of 1 billion bushels. Wheat-production prospects in most importing countries are indicated to be better than last year, but world wheat imports will continue large through 1946–47.

To obtain 250 million bushels for export from the United States, a set-aside purchase program became effective May 24. However, this was suspended on June 30. The set-aside required (1) producers in important States to sell at least one-half of their milling wheat which they deliver to a handler or processor, and (2) such receivers to set aside for delivery to the CCC not less than one-half of the milling wheat purchased from producers. Beginning July 1, the quantity of wheat which may be used by millers is restricted to 85 percent of the 1945 monthly average, as compared with 75 percent in the period from April 1 to June 30. It is expected that there will be a substantial increase in the domestic use over recent weeks, when many mills have been unable to obtain enough wheat to grind up to their 75 percent level. However, the total for the year, even on a flour-consumption basis, is expected to be the lowest in over a quarter of a century. Because of producing more flour per bushel of wheat, the decline in flour consumption will not be as large as indicated by the reduction in the quantity of wheat processed.

The determination of exports of 250 million bushels was based on a very tentative distribution (estimates for 1945–46 in parentheses) as follows, in million bushels: Food 450 (494), feed 150 (328), seed 82 (82), and industrial use 2 (21). On the basis of a billion-bushel crop this would permit an increase in the carry-over on July 1, 1946, of about 60 million bushels. The carry-over of old wheat on July 1, 1946, is expected to be about 100 million bushels, the lowest since 1937.

Wheat production as indicated on June 14 was 1,033 million bushels, con-

sisting of 809 million bushels of winter wheat and 224 million of spring wheat. A production of this size would be our fourth billion-bushel crop.

Only once in the past 45 years—in 1934—did the total acreage of all crops harvested in the United States drop below 300 million. The biggest total acreage harvested during the period was 362 million acres in 1932.

Seventeen major crops produced in this country account for 95 percent of the total acreage of all crops harvested. Corn and wheat combined account for about 45 percent of the total acreage.

The biggest wheat acreage of record—nearly 74 million acres—was harvested in 1919 but the record production of over a billion bushels was harvested in 1945.

Total crop production in this country in 1942 was the biggest of record.

FEED GRAINS

INCREASES of 8 to 35 percent in ceiling prices of the principal grain and byproduct feeds, which went into effect May 13, caused the first material reversal in the price relationships between feed prices and prices of livestock and livestock products since price controls were first imposed on these products early in the war. In spite of the now relatively unfavorable livestock-feed price relationships, raising the ceilings did not immediately reduce the commercial demand for feed. However, during the next 6 months, feed requirements will probably be smaller than last year, because of accelerated decreases in numbers of livestock, particularly chickens, and lighter concentrate feeding.

The combined carry-over of old-crop corn, oats, and barley on farms and at terminal markets this year will be considerably smaller than that of a year earlier, and the smallest in recent years. Carry-over stocks of corn probably will be the smallest since 1937; carry-over of barley on June 1 was the smallest since 1938; but carry-over of oats on July 1 probably will be the largest in recent years as a result of the record production in 1945.

The season to mid-June was mostly favorable for feed crops except in the Southwest, and given average or better growing conditions during the summer, fairly large feed grain and hay supplies may be expected for the 1946–47 feeding season. On June 1 progress of corn planting was at least average in the Corn Belt and the country as a whole. The second largest oat crop of record is in prospect for this year; the June 1 forecast of nearly 1,493 million bushels of oats is only 4 percent below the record crop harvested in 1945. However, barley production during 1946, indicated on June 1 at 231 million bushels, would be the smallest since 1937.

LIVESTOCK

MEAT production in 1947 may be around 1 billion pounds less than in 1946. With the level of meat production indicated, civilian meat supplies in the first 6 months of 1947 will be smaller than the large quantities consumed in the first half of this year.

Hog producers indicated in the June pig survey that they would breed 16 percent fewer hogs for fall farrow this year than the 5½ million that farrowed last fall. If these intentions are borne out the 1946 fall pig crop will total around 29 million head, compared with 35 million saved last fall. This year's spring pig crop was little different from the 52 million saved in the spring season of 1945.

The sharp decline in hog production this fall will be reflected in lower pork output beginning in early 1947. Slaughter of hogs in the remainder of 1946 is likely to continue larger than a year earlier. This prospect is largely attributable to the earlier marketings

of the spring pig crop this year, the result of smaller supplies of corn this summer and higher prices for the feed grains than a year earlier.

Beef production in the first 5 months of 1946 was only moderately less than a year earlier, despite a great reduction in federally inspected output. Non-federally inspected slaughter established a new high record during the period. Cattle slaughter is expected to continue large during the rest of the year. However, a moderate reduction in beef output from 1946 is indicated for 1947.

Lamb slaughter since April has been materially below a year earlier. Slaughter is likely to continue less than a year earlier, because of the smaller lamb crop saved this year. Sheep slaughter continued large through midyear, indicating that the downward trend continues in the number of sheep on farms and ranches.

DAIRY PRODUCTS

PRICES received by farmers for dairy products were increased substantially as a result of action taken by the Office of Price Administration through mid-June. Ceiling prices for fluid milk were increased at retail, giving farmers an increase of about 40 cents per hundred pounds for whole milk used for city distribution. The retail price of butter was increased 11 cents per pound, making it possible for creameries to pay farmers 12 or 13 cents more for butterfat used in making butter. Retail ceiling prices of cheese and evaporated milk also were increased, enabling processors to pay farmers more for milk used for these manufacturing purposes.

For the first time, ceilings were set on the prices that processors could pay farmers for milk used for manufacturing purposes. However, these

Prices of Farm Products

[Estimates of average prices received by farmers at local farm markets based on reports to the Bureau of Agricultural Economics. Average of reports covering the United States weighted according to relative importance of district and State]

Commodity	5-year average		June 15, 1945	May 15, 1946	June 15, 1946	Parity price June 15, 1946
	August 1909–July 1914	January 1935–December 1939				
Wheat (bushel)—dollars	0.884	0.837	1.50	[1] 1.70	1.74	1.65
Rice (bushel)—do	.813	.742	[2] 1.81	1.87	1.85	1.52
Corn (bushel)—do	.642	.691	1.11	1.35	1.42	1.20
Oats (bushel)—do	.399	.340	.674	.795	.809	.746
Hay (ton)—do	11.87	8.87	15.90	14.80	14.70	22.20
Cotton (pound)—cents	12.4	10.34	20.90	24.09	25.98	23.19
Soybeans (bushel)—dollars	[3] .96	.954	2.17	2.16	2.17	[4] 1.80
Peanuts (pound)—cents	4.8	3.55	8.23	8.90	8.83	8.98
Potatoes (bushel)—dollars	.697	.717	[2] 1.79	1.57	1.47	1.37
Apples (bushel)—do	.96	.90	2.71	3.84	3.69	1.80
Oranges on tree, per box—do	[5] 1.81	1.11	2.96	3.14	3.22	[4] 2.21
Hogs (hundredweight)—do	7.27	8.38	14.10	14.30	14.30	13.60
Beef cattle (hundredweight)—do	5.42	6.56	[2] 13.40	13.80	14.10	10.10
Veal calves (hundredweight)—do	6.75	7.80	13.80	14.40	14.80	12.60
Lambs (hundredweight)—do	5.88	7.79	13.40	14.10	14.30	11.00
Butterfat (pound) [6]—cents	26.3	29.1	50.2	51.0	5.21	[7] 4.51
Milk, wholesale (100-pound) [6]—dollars	1.60	1.81	[2] 3.06	[2] 3.24	[8] 3.39	[7] 2.66
Chickens (pound)—cents	11.4	14.9	[2] 27.6	25.3	26.6	21.3
Eggs (dozen)—do	21.5	21.7	35.8	32.8	33.5	[7] 35.0
Wool (pound)—do	18.3	23.8	[2] 42.5	41.8	41.9	34.2

[1] 30 cents a bushel bonus, under Government purchase program, not included.
[2] Revised.
[3] Comparable base price, August 1909–July 1914.
[4] Comparable price computed under section 3 (b) Price Control Act.
[5] Comparable base price, August 1919–July 1929.
[6] Does not include dairy production payments made directly to farmers by county PMA offices.
[7] Adjusted for seasonality.
[8] Preliminary.

ceilings permitted sizable increases over recent levels. The items on which prices were increased make up most of the milk sold off farms. Unit cash returns to farmers in the second half of 1946 will depend on final action of Congress on pending legislation concerning price control and subsidies. However, if subsidies in the second half of 1946 are the same as in the first half, after seasonal adjustments, the recent price increases would give farmers about 23 percent more for butterfat and 15 percent more for milk sold at wholesale than they received in the second half of 1945. Costs of feed rations in mid-June were about 20 percent higher than a year earlier.

Pasture conditions over the country have been very good in the past several weeks, enabling farmers to obtain more milk per cow even though smaller quantities of concentrates have been fed. Also, a larger proportion of milk cows are being milked than during the past two summers.

The demand for milk for direct use by consumers has been almost fully satisfied in the past few months of flush production, but consumer demands for manufactured products have been far from satisfied.

FOOD SUPPLIES

AT PRESENT price levels, consumers this summer will be wanting to buy more meat, cheese, butter, evaporated milk, canned and dried fruit, and many cereal products than are available. Supplies of other foods will be relatively plentiful. These include fluid milk, eggs, poultry, fresh fruits and vegetables, potatoes, frozen foods, fish, and canned vegetables. Civilian supplies are expected to continue large, and the outlook for food production this year is exceptionally good.

Most foods will be more plentiful than in recent months. The principal exception is meat, but meat supplies usually are smaller during the summer months. Little change is expected in the civilian per capita supplies of such foods as fluid milk, ice cream, cheese, eggs, but there will be somewhat more poultry, evaporated milk, fresh and frozen fruits and vegetables, bananas, potatoes, and some cereal products. Supplies of wheat from the new billion-bushel crop are now being milled. More flour will go into civilian channels than in recent weeks and the distribution over the country will improve considerably.

Emphasis on the shortages of many foods in relation to demand has almost covered up the fact that civilian food supplies per capita are continuing larger than last spring and summer when military procurement was very great. Even on a per person basis, civilians in this country will have more meat, fluid milk and cream. ice cream, cheese, poultry, apples, bananas, frozen fruit, fresh vegetables, and potatoes than last summer. Supplies of eggs and fresh deciduous fruit other than apples and bananas will be about the same as a year earlier. There will be some reductions in the per capita supplies of fats, fresh citrus fruit, and cereal products.

Any widespread price rise for foods would reduce the effective demand for food but would have little effect on the total quantity available for civilian consumption unless higher prices caused exports to fall off. However, higher prices would change the shares of available food supplies received both by geographical areas and by income groups. Also, the supplies of some foods would be increased in the next year or two at the expense of other foods, for example—meat and poultry as opposed to cereal products and milk.

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Corn ear sizes range from small ears hardly as large as a man's thumb to those as much as 20 inches long grown in the Jala Valley of Mexico. Here the stalks are so tall that ears may be conveniently harvested from horseback.

VEGETABLES

FARMERS have provided an abundant supply of fresh vegetables and new potatoes to be marketed this summer. The early commercial crop of white potatoes produced this year is indicated at 75,010,000 bushels, nearly 11 million bushels larger than the next largest crop produced last year. Much of this crop has already moved to market. Prices are heavily dependent upon the Government support program.

Government purchases of early potatoes for price-support purposes have been at a record high rate. Distillers, who ordinarily would prefer grain as a much cheaper source of material for alcohol manufacture, have furnished an outlet for most of the potatoes acquired under the program to date, and are expected to show even more interest in late-crop potatoes because of their lower cost and lower moisture content. Between the high level of public demand for food in general, and the unusual demand for potatoes from distillers, the late crop may prove inadequate unless growers exceed their acreage intentions expressed last March, or unless yields are considerably above last year's record high.

The total quantity of commercial truck crops produced for fresh market shipment this summer is expected to be about one-fifth larger than last summer's very large production. Especially large increases are indicated for cantaloups, watermelons, green peppers, onions, and celery. In general, prices to growers for truck crops sold on the fresh market this summer probably will average moderately lower than a year earlier. Because of the very strong demand for truck crops for canning and freezing, prices to growers for such crops are expected to average about as high as last year.

FRUIT

THIS year's crop of deciduous fruit is expected to be about one-tenth larger than the 1945 crop and slightly larger than the average. Prospects are very good in the Western States and much more favorable in the Eastern States than last year. Prices to growers for the new crop probably will average near the relatively high levels of the last 2 years.

The 1946 peach and pear crops are indicated to be nearly as large as the record crops last year and well above average. The cherry and apricot crops are estimated to be well above both last year and average. Anticipated commercial apple production is slightly below average but much above the record-low production of last year. The outlook is for a larger crop of fresh plums but a smaller crop of prunes, used mostly for drying, than were produced last year. The June 1 condition of the California grape crop suggested a crop not quite as large as the near-record 1945 crop. The outlook is least favorable for raisin variety grapes.

If the deciduous fruit crops turn out about as now anticipated, if supplies of tin cans are adequate, and if there are no serious labor difficulties in harvesting and processing the fruit, the commercial pack of canned fruits will be considerably larger this season than last and the pack of dried fruits about the same.

Stocks of canned and dried fruits at the beginning of the 1946–47 season are the smallest in several years, the result in part of the unprecedented demand for all sorts of food this year. With such low stocks of processed fruits and with continuing high consumer incomes, demand for fruit for processing as well as for fresh use is expected to be strong this season. Consequently, prices received by growers for the 1946 fruit crops are likely to average near those of 1944 and 1945.

POULTRY AND EGGS

EGG production is likely to decline more than seasonally in coming months. However, egg prices received by farmers in the remainder of 1946 may not be much different from the average in the second half of 1945, as storage stocks are very large. Culling of laying flocks probably will continue somewhat heavier than usual for the next few months. The number of potential layers saved for 1947 egg production will depend in large part on the outcome of this year's feed crop.

Farmers will market fewer chickens in the rest of the year than in the corresponding period last year. However, as stocks of both chickens and turkeys are the largest on record, prices received by farmers in coming months may be about the same as in the second half of 1945. Because of the sharp reduction in hatchery output and small late hatch of chicks this year, farm marketings of chickens and turkeys will be completed earlier this year than last.

The egg-feed price relationship has become considerably less favorable than before, as result of the increase in feed prices during May. This less favorable relationship, together with difficulties in actually obtaining feed, has resulted in an early ending in the hatching season. The number of chicks hatched by commercial hatcheries in May was the smallest for that month since 1940 and 35 percent smaller than in 1945. A still sharper reduction in chick output is indicated by the 73 percent reduction in eggs in incubators as of June 1.

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The development of hybrid corn has done more to stabilize American food production than anything else since the development of the steel plow or the mechanical reaper and is regarded by many as the most important development in food-bearing plants since the new world was discovered.

FOOD PLENTIFUL?

SOME of our readers are wondering about the story on food supplies that appeared in the May issue of the Agricultural Situation. The story said, "This year's food supplies for the people of the United States are among the most plentiful in over a quarter of a century . . ."

One man wrote, "If this is true, then where are these food supplies, and why can they not be made available to our people? As an example here in my section there is no butter, oleo, bacon, salt meat, lard, ham, and but little beef. No corn meal, grits, rice, a shortage of flour and of bakers bread. No feed for chickens, cows, work animals and other livestock. Sugar is rationed . . ."

Well, items like these are scarce in most markets. The food economists know, of course, that supplies of some items, such as butter, are smaller than prewar. But looking at food supplies in over-all terms, with proper weighting for nutritional values, they find that supplies per capita are 10 to 12 percent above prewar.

Present bare shelves in the markets, the economists, say, are caused principally by the increase in civilian demand for food. They point out that people now have more money than in 1935–39 and that civilian demand has outstripped the gain in supplies. Civilian demand for food at current prices, they estimate will probably be 5 to 10 percent above supply levels for the rest of this year.

Machinery on Farms

DESPITE the obstacles to production of farm machinery during the war and the past months, there are now more tractors and tractor-operated machines on farms than ever before. During 1945–46, output has exceeded replacement needs for tractors and most tractor machines. However, the number of work animals has been declining for years, and production of most animal-drawn machines has been declining even more rapidly than numbers of work stock.

There are about 1.4 million less horses and mules (3 years and older) on farms this year than in 1942. The reduction in 1945 of about 600,000 head was larger than for any year except 1936. Exports of horses and mules have been running high, largely because of UNRRA shipments of about 75,000 head during the past 12 months. Most of these animals were shipped to the devastated areas of Europe where there are critical shortages of farm power.

If 1 tractor displaces an average of 4¼ work animals for drawbar work, as has been estimated, an increase in tractor numbers of about 140,000 is needed this year to offset loss in numbers of work stock; and about 100,000 additional new tractors are needed to replace worn-out tractors. New tractors available to farmers for the year ended June 30 amounted to only about 160,000.

The increase in tractor numbers in the past 10 years has been almost entirely in general-purpose rubber-tired tractors. Rubber tires permit tractors to cover the ground faster, and increase the advantage of machine power over animal power especially for many light-duty jobs like haymaking.

The war increased the adoption of some machines, long used before—such as the combine, mechanical corn picker, milking machine, tractor mower, windrow pick-up baler, and the cotton stripper. Among others which were either not widely used or in process of development at the outbreak of the war are the mechanical cotton picker, the beet harvester, beet loader, and the forage harvester. Wartime improvements in some machines meant better performance or smaller operating crews.

The grain combine which has been used on farms for many years was used to harvest half the wheat and 15 percent of the oat acreage in 1938. In contrast, more than 75 percent of the wheat acreage and about 40 percent of the oat acreage were combined in 1945. Use of the combine for most small grain crops has increased about as much as for oats. Even a larger proportion of the soybean acreage harvested for beans is now combined. About 11 million acres of soybeans were harvested for beans in 1945 compared with about 3 million in 1938. Most of the soybean acreage both years was combined. The self-propelled combine came into use during the war years, and along with the development of grain drying plants helped to bring the combine method to the humid rice areas. The number of combines on farms this year is the highest on record.

Corn pickers on farms for use in 1946 are probably about 30 percent above the number available for the 1942 harvest. Because each picker covers more acres, this year's acreage, harvested with pickers will probably be almost double that of 1942. Labor shortages, increased use of corn hybrids, and large corn crops have lengthened the corn harvest season, and more acres are now harvested annually per picker than earlier years. The mechanical corn picker is now widely used, and in many areas of the central Corn Belt more than two-thirds of the corn crop is machine picked.

The use of new-type power machines for haymaking, especially tractor mowers, windrow pick-up balers, buck rakes, and combination stacker-loaders increased greatly in the war years. The tractor mower of today is usually tractor mounted and operates with tractor power take-off. Tractor mowers did 15 percent of the hay cutting in 1939, but 42 percent in 1944, with probably half of the 1946 hay crop being cut with tractor mowers.

New types of balers have come into use, and the 1946 farmer can purchase self-tying windrow pick-up balers of either the twine or wire type. In 1939 only 15 percent of the hay crop was baled as compared with 27 percent in 1944. Mostly, the increase in baling came from the increased use of the windrow pick-up baler which accounted for less than 3 percent of the 1939 crop and for about 14 percent of the 1944 crop. The buck rake and the combination stacker-loader are increasing in use and under favorable conditions reduce labor needs and reduce costs in haymaking.

Mechanization of sugar production has been increased in recent years. Increased planting of segmented seed has materially reduced labor needs for thinning. Marked expansion has also taken place in the use of beet harvesters and beet loaders. Some types of beet harvesters combined the lifting, topping, and loading operations.

Cane harvesters and cane loaders are also increasing in use. More of these machines are available this year than in any previous year.

Mechanization of the cotton harvest increased during the war years. In 1944 the mechanical cotton picker, long in the development stage, was first offered for direct sale to farmers. Some of these machines are now in operation on farms. Use of the mechanical cotton strippers increased during the war. Originally used only in the subhumid areas, the strippers were used to a limited extent for harvesting the 1945 crop in the more humid areas of the Cotton Belt where labor shortages combined with unfavorable weather conditions made it impossible for many growers to harvest their crops by hand methods.

During the war many machines such as the forage harvester, the manure loader, the potato picker, and many attachments increased in numbers and in use. Outstanding has been the marked increase in the numbers of milking machines on farms. Numbers of milking machines on farms in 1946 are about double those of 1942. Milking machines often reduce labor needs for milking about 50 percent; they have contributed toward maintaining dairy production at a high level since 1942.

Despite these advances, the need for new farm machinery is great. Farmers in the United States increased their machine work during the war years, and now need replacements for badly worn and outmoded machines. Need for new machines in the war-devastated areas is also great, as shortages of power and machinery have curtailed production.

Exports including lend-lease shipments and UNRRA purchases amounted to about 110 million dollars during the 9 months ended April 1. Of this amount UNRRA has purchased about 10 million dollars worth. Total exports of farm machinery in the calendar year 1945 amounted to more than 160 million dollars. These exports will help farmers in foreign countries get back into production more rapidly. Thus those countries will be that much less dependent on food imports in the years ahead.

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Insect Problems this Season

ALTHOUGH no one can accurately foretell what insect pests may do at some future time, it is necessary to be constantly informed on what considerable numbers of a given potential pest might mean at certain times, then, when necessary, be able to apply proper controls at exactly the right moment.

Federal and State entomologists are constantly surveying insect populations in many commercial crops. In cotton fields, for instance, they collect live boll weevils during fall months, check the number per acre about cotton fields, determine the number which live through the winter, and by spring, are able to tell whether chances are good for the weevil to become a serious cotton pest during the summer months. The only predictions entomologists are willing to make with regard to the possible damage that may be caused by insect pests are predicated upon such surveys.

It is difficult to predict what losses by insect pests may amount to during the current crop season. However, on the basis of information available on significant insect conditions as of early June, the following possibilities are suggested.

Insects affecting animals.—In the Southwest, particularly in the southern part of Texas where the screwworm fly overwinters, large overwintering of screwworms was prevented by a lengthy drought period which extended well into the spring months. No normal invasion or increase of screwworm flies migrating from this southern overwintering area was experienced in northern sections immediately adjacent. Hot weather and spring rains have created a condition favorable to a rapid increase in screwworm population and this may result in an increased number of screwworm cases in late sheared, castrated, or dehorned animals. In the Southeast, large numbers of the screwworm successfuly overwintered, particularly in certain sections.

Fruit crop insects.—In general, losses due to fruit insects had been very limited by mid-1946. Plum curculio, according to present indications, may cause greater than normal losses to peaches, at least from Georgia north to Virginia and in southern Illinois. Pear psylla may cause greater than average losses to pears in the Northeastern United States.

Codling moth, in the East and Middle West, due to the light carry-over from 1945 and probable increased use of DDT, will be much less injurious than normally.

Oriental fruit moth numbers may be increased. This possibility, following a considerable development during the latter part of the 1945 season, especially in parts of the Middle West, may cause large peach losses by this insect, as compared to the low level reached in the country as a whole the last 2 years.

Cotton insects.—In general, boll weevils were more abundant than usual the first week of June. There may be serious damage to cotton by the boll weevil this summer unless the weevil is checked by natural conditions or by insecticides.

The beet army worm was reported to be causing serious damage to cotton in a few areas in Arizona this spring. Cotton fleahopper populations are below normal and the cotton leafworm has not been reported so far this year. In general, infestations of cotton aphids are below normal so far this year.

Insects affecting cereal and forage crops.—Hessian fly injury to the 1946 wheat crop is being reported from north-eastern Oklahoma, central and eastern Kansas, much of Missouri, and south-western Illinois. Thus yields were reduced somewhat by this insect

throughout a rather large area in the heart of the winter Wheat Belt.

More European corn borers went into hibernation last fall than in the fall of 1944, and mortality of overwintering borers throughout the Central and Eastern States where the European corn borer occurs is usually slight. This insect does not begin to attack the new corn crop until some time in June.

Chinch bug injury to small grains and corn by first-brood chinch bugs is expected to be comparatively small in 1946, except in a few restricted areas.

Grasshopper surveys last fall and developments this spring indicate that severe infestations will occur only in scattered and rather limited areas. Considerable crop damage and active control operations are in progress in southern Arizona, central and southern California, and southeastern Oregon. Local infestations, crop injury, and control operations are developing in central and northwestern Texas, western Oklahoma, eastern Colorado, southwestern Nebraska, northern and west-central Utah, eastern Montana, and scattered localities in other Western States. Moderate to heavy infestations may also develop in south-central and southwestern South Dakota and central Minnesota.

Insects affecting truck crops.—The spotted cucumber beetle had caused some damage to beans in Florida, cabbage in southern Alabama, corn in southern Mississippi, and spinach in southern Texas this spring, and is apparently somewhat more abundant than usual in these areas. Intensity of infestations appear to be somewhat spotty, however.

A pea aphid outbreak developed again in peas in the Northwest, somewhat earlier and more severe than that of 1945.

Moderate to heavy infestations of the Colorado potato beetle have been reported in New Jersey and Tennessee, but no serious infestations of leafhoppers on potatoes have developed thus far this year.

Moderate to heavy infestations of the imported cabbage worm on cabbage and related crops have been reported from Southern States, and some damage was being caused but it is in northwestern Tennessee. Fields of untreated cabbage in South Carolina were showing damage by the end of April. The diamondback moth, together with the cabbage looper, caused damage in central Florida as early as March.

Onion thrip infestations requiring control measures developed in March and April in the Salt River Valley, Ariz., and in southern California.

Control measures.—The use of DDT as an insecticide has assumed a very prominent place in the pest control field since VJ-day, and recommendations have been given to the public for use of the insecticide in the control of a few agricultural insect pests.

Another new insecticide which may have a brilliant future is benzene hexachloride, now being extensively tested for use in this country by the Bureau of Entomology and Plant Quarantine.

Few if any of the old and well-known insecticides will be totally supplanted by the appearance of the new and more effective insecticides. The use of nicotine, rotenone, pyrethrum, the arsenicals, and others will be continued. The efficiency of some, particularly pyrethrum, has been stepped up remarkably during the past few years and entomologists are constantly searching for methods to increase the efficiency of others. The development of new insecticides, plus the tried and true insecticides already in use, have brightened the prospects for the control of many insects which so seriously affect agriculture.

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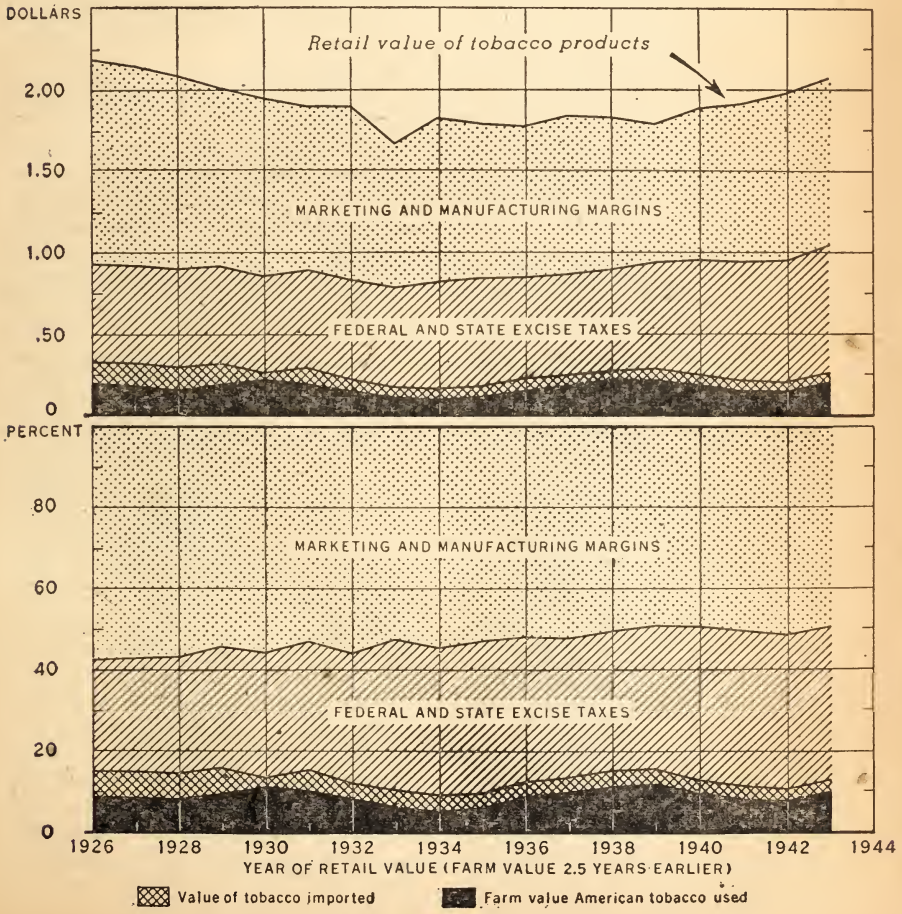
Tobacco Marketing Margins

THE tobacco industry has long needed more information on marketing and manufacturing margins for tobacco and tobacco products. These margins, or costs for tobacco and its products, influence returns to growers, on the one hand, and costs to consumers on the other. Without excise taxes they accounted for more than half the average cost to consumers of finished tobacco products during the 18 years 1926–43. Returns to growers were about one-eighth of the consumer price, and Federal and State excise taxes were more than one-third. During this period Federal and State excise taxes increased and the proportion of the consumer's dollar accounted for by marketing and manufacturing margins decreased.

The margin or spread between prices

NOTE.—This summary is based on the recent BAE report *Marketing and Manufacturing Margins for Tobacco.*—Editor.

AVERAGE RETAIL VALUE OF TOBACCO PRODUCTS OBTAINABLE FROM A POUND OF TOBACCO, AVERAGE VALUE OF THE TOBACCO USED, AND MARGINS, UNITED STATES, 1926-43



to growers for leaf tobacco and prices paid by consumers for the finished tobacco products usually includes costs of such services as assembling, selling, storing, financing, manufacturing, transporting, wholesaling, and retailing, as well as Federal, State, and local excise taxes.

Estimates of the average distribution of the consumer's dollar paid for tobacco products in 1939 (the last "normal" prewar year) show that about 11.6 percent went to growers for American tobacco, 3.6 percent for tobacco imported, 1.2 percent to wholesalers of leaf tobacco, 25.2 percent to manufacturers, 36 percent for Federal and State excise taxes, 4 percent to wholesalers of tobacco products, and 18.4 percent to retailers. In that year salaries and wages accounted for about 17.8 percent of the retail price for all tobacco products combined; advertising, 4.2 percent; operating profits for all agencies, except farmers, 10.3 percent; and all other expenses of manufacturing and distributing the products averaged about 16.5 percent.

These data on margins and other information indicate how and to what extent these margins could be reduced and the relative importance of such reductions. For example, if substantial reductions were made in Federal and State excise taxes on tobacco products, in net operating profits of manufacturers, and in costs of advertising, the farm-to-retail price spread for tobacco products might be reduced considerably. These three items accounted, on the average, for about half of the retail price in 1939, and were more than four times as great as the returns to growers in the United States for the leaf tobacco used.

A number of other reductions in tobacco margins are indicated in spite of inadequate data concerning some stages of marketing and processing.

For instance, in farm marketing, little is known about costs of transportation from farm to loose-leaf auction markets, because most of the hauling is done by growers or local truckers. But data is available on warehouse fees. Most cigar-leaf tobacco, however, is sold at the farm, and the costs of buying, transporting, processing, and handling are included in manufacturers' margins.

Analysis of records for individual warehouses in Virginia for the seasons 1929–30 and 1930–31, when charges were about the same as in recent years, indicated that costs of operating tobacco warehouses could be reduced considerably by using labor more efficiently, by reducing overhead costs per unit of product through more complete utilization of capacity for a longer period during the year and by reducing losses of leaf account through care in handling.

Margins for tobacco manufacturers in 1939 averaged about 27 percent of the retail price of the finished products and more than twice as much as returns to American growers for the leaf tobacco used. A reduction of 5 percent, for example, in the manufacturers' margin, would amount to about as much as a reduction of 1.3 percent in retail prices and to more than an increase of 10 percent in returns to the United States growers for the tobacco used.

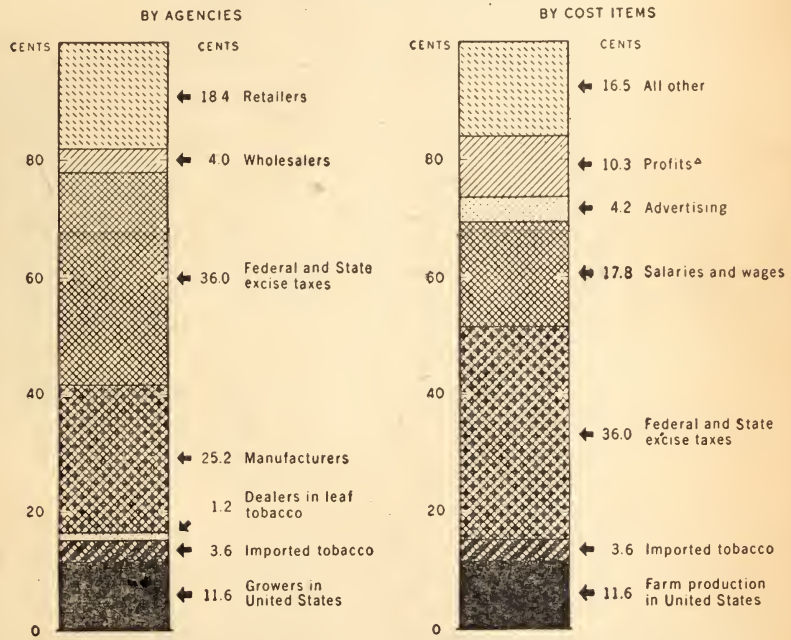
Margins for wholesaling and retailing tobacco products in 1939 averaged about 22.7 percent of the retail price and about twice as much as the returns to growers in the United States for the leaf tobacco used in their manufacture. Retailers' margins alone averaged about one-sixth of the retail price and about 1½ times the return to farmers in this country for the leaf tobacco used. A reduction of 10 percent, for example, in wholesalers and retailers' margins combined would amount to about as much as a reduction of 2.3 percent in retail prices and 3.6 percent in manufacturers' margins, or about 19.4 percent of the returns to growers in the United States for leaf

tobacco used. A reduction of 10 percent in retailers' margins alone would about equal a reduction of almost 2 percent in retail prices and about 3 percent of manufacturers' margins, or about 16 percent of the returns to growers in the United States for leaf tobacco used. This merely indicates that even small percentage reductions in retail margins could have a considerable effect on returns to growers.

Data showing distribution of the consumer's dollar paid for tobacco products indicate the relative importance of bringing about increased efficiency and reductions in margins. According to these data, margins for marketing leaf tobacco in 1939 amounted to less than 1 percent of the consumer's dollar. Manufacturers' margins amounted to about one-fourth Federal and State excise taxes, 36 percent; and wholesalers' and retailers' margins combined amounted to more than one-fifth of the retail value of the finished products. A reduction of 10 percent in Federal and State excise taxes, for example, would amount to more than one-fourth of the returns to growers for the American tobacco used. A similar reduction in margins for manufacturers, wholesalers, and retailers would amount to more than one-third of the returns to growers and to almost 5 percent of the costs of the finished products to consumers.

L. D. Howell
Bureau of Agricultural Economics

APPROXIMATE AVERAGE DISTRIBUTION OF THE CONSUMER'S DOLLAR PAID FOR TOBACCO PRODUCTS, UNITED STATES, 1939*



*BASED ON OFFICIAL AND OTHER DATA AND PARTLY ESTIMATED △ PROFITS TO FARM PRODUCERS NOT INCLUDED

U. S. DEPARTMENT OF AGRICULTURE NEG. 45590 BUREAU OF AGRICULTURAL ECONOMICS

Year and month	Industrial production (1935–39 =100)[1]	Income of industrial workers (1935–39 =100)[2]	1910–14=100				Index of prices received by farmers (August 1909–July 1914=100)			
			Wholesale prices of all commodities[3]	Prices paid by farmers		Farm wage rates[4]	Livestock and products			
				Commodities	Commodities interest and taxes		Dairy products	Poultry and eggs	Meat animals	All livestock
1910–14 average	58	50	100	100	100	100	100	101	101	101
1915–19 average	72	90	158	151	150	148	148	154	163	158
1920–24 average	75	122	160	161	173	178	159	163	123	142
1925–29 average	98	129	143	155	168	179	160	155	148	154
1930–34 average	74	78	107	122	135	115	105	94	85	93
1935–39 average	100	100	118	125	128	118	119	199	119	117
1940–44 average	192	237	139	150	148	212	162	146	171	164
1945 average	203	286	154	180	174	350	197	196	210	203
1945										
June	220	311	155	180	173	337	191	189	216	203
July	210	297	155	180	173	351	192	197	215	205
August	186	269	154	180	173	--------	195	207	212	206
September	167	230	154	181	174	--------	197	201	207	203
October	162	225	155	182	175	345	199	204	202	202
November	168	229	156	182	175	--------	202	218	203	206
December	163	233	156	183	176	--------	204	222	204	207
1946										
January	160	235	156	184	177	361	203	197	206	204
February	153	219	157	185	178	--------	202	168	214	202
March	168	[5] 239	159	187	180	--------	201	167	219	203
April	164	244	161	188	181	362	199	166	225	205
May	--------	--------	161	192	184	--------	198	173	226	207
June	--------	--------	162	195	187	--------	207	178	230	213

Year and month	Index of prices received by farmers (August 1909–July 1914=100)									Parity ratio[6]
	Crops								All crops and livestock	
	Food grains	Feed grains and hay	Tobacco	Cotton	Oil bearing crops	Fruit	Truck crops	All crops		
1910–14 average	100	101	102	96	98	99	--------	99	100	100
1915–19 average	193	164	187	168	187	125	--------	168	162	106
1920–24 average	147	126	192	189	149	148	[7] 143	160	151	86
1925–29 average	140	119	172	145	129	141	140	143	149	89
1930–34 average	70	76	119	74	72	94	106	86	90	66
1935–39 average	94	95	175	83	106	83	102	97	107	84
1940–44 average	123	119	245	131	159	133	172	143	154	103
1945 average	172	161	366	171	215	220	224	201	202	116
1945										
June	173	162	364	169	217	237	269	210	206	119
July	169	161	364	171	221	237	244	207	206	119
August	167	158	367	172	215	214	240	202	204	118
September	167	157	365	175	213	217	159	191	197	113
October	175	160	373	180	210	219	181	196	199	114
November	178	161	375	182	213	217	235	203	205	117
December	178	162	378	184	213	230	223	206	207	118
1946										
January	179	164	375	180	213	225	249	207	206	116
February	180	166	385	186	212	233	275	213	207	116
March	185	171	367	183	208	229	283	215	209	116
April	185	171	368	190	210	244	282	220	212	117
May	198	188	369	194	214	248	177	215	211	115
June	200	195	370	210	219	261	185	223	218	117

[1] Federal Reserve Board; represents output of mining and manufacturing; monthly data adjusted for seasonal variation.

[2] Computed from data furnished by Bureau of Labor Statistics and Interstate Commerce Commission on pay rolls in mining, manufacturing, and transportation; monthly data adjusted for seasonal variation. Revised May 1946.

[3] Bureau of Labor Statistics.

[4] Monthly data adjusted for seasonal variation.

[5] Revised.

[6] Ratio of prices received to prices paid for commodities, interest, and taxes.

[7] 1924 only.

U. S. GOVERNMENT PRINTING OFFICE: 1946